NOTE I.

ON NISUS RUFITORQUES AND N. POLIOCEPHALUS,

BY

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Since my treating of these two species in my work entitled «Muséum d'histoire naturelle des Pays-Bas", I have had an opportunity of examining a larger series of specimens of them and am now enabled to confirm the results of my former studies.

I consider these birds with the allied Nisus iogaster of Amboina and Ceram and a certain number of other species as belonging to a group of Sparrow-hawks, differing from the common sparrow-hawk and its allied species by a greater head, stronger bill, larger eyes, less slender tarsus and especially by shorter but thicker toes, the last characteristic applying more especially to the middle toe.

Of these three species, Nisus rufitorques has the widest range: being found in Bouro, in the Halmahere Isles, New-Guinea and the adjacent islands, and even in the Fidji Archipelago. The distribution of Nisus poliocephalus is confined to New-Guinea, the Papoa islands and the Aru islands; and Nisus iogaster has only been observed in Ceram and Amboina. The latter species, is very conspicous: in perfect plumage by the deep rusty red color of its lower parts; in immature plumage by the white color of the lower parts being only interrupted by a small number of dark heart-shaped spots, commonly somewhat larger at the sides of the body.

NISUS RUFITORQUES.

It is known, that Nisus rufitorques was established by Cassin and that he has published drawings of two specimens, viz. an adult male and a young female [1]), both killed in the Fidji islands. We possess four adult specimens of this locality. There is some variation in the distribution of the vinous color in the two sexes. This color is somewhat deeper in the females and spreading over the under tail-coverts, it becomes a little lighter on the under wing-coverts and passes on the middle of the throat to a grayish white. In the males, the vinous color is confined to the under part of the body, the under coverts of the tail are grayish white, the throat is still more inclining to white, and the under coverts of the wings are of a pure white. The thigh feathers have with both sexes a vinous tint.

Two adult males of the Arfak mountains in New-Guinea present a coloration exactly similar to that of the old female of Fidji.

In an adult female of Little Key island the vinous color reaches only to the middle of the abdomen, the rest of the belly, the thigh feathers, the under coverts of tail and wings being of a pure white. Besides this, the slate color of the upper parts is much lighter and inclining to a whitish grey.

The entire head, neck and throat up to the mantle and the breast of a fine adult male killed in the isle of Bouro is of a pure grayish-white to rust color and occupies the whole of the breast, the belly, the thigh feathers and also the under coverts of tail and wings.

The late Dr. Bernstein collected three adult specimens

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1) United States exploring expedition, Philadelphia, 1858, pl. 2.

in the island of Guebeh. Two of these, male and female, hardly differ in color from the adult female of the Fidji islands. The second old female is, on the contrary a much larger and stouter bird; the vinous color is much deeper passing almost to rufous, and intercepted by numerous narrow and pale bars of a grayish white color.

There is no difference between this latter specimen and an adult female killed in Obi-island.

We observe exactly the same system of coloration in four adult specimens collected in the island of Morotay, but in an adult male shot in the same island, the vinous tint is strongly inclining to rufous, and without any trace of clear bars. It is almost superflous to state, that Mr. Wallace established his Accipiter Muelleri on specimens of Nisus rufitorques of Morotay-island.

Ten adult individuals shot in the isle of Ternate are like those of Morotay, but the light cross bars are in general less conspicous and entirely wanting in three of the specimens. Besides these individuals we received from this island two specimens of the dark variety living in Halmahera.

Neither is there any decided difference between four adult specimens of the island of Batjan and those of Morotay, but a fifth adult female of Batjan shows the coloration of the black variety common in Halmahera.

Five of our adult specimens of Halmahera can in no way be distinguished from those of Morotay, except that four of them have the light cross bars of the lower parts more pronounced; but in the fifth specimen these bars are entirely wanting. There exists, however, in the island of Halmahera, besides the specimens with the usual coloration, others that form a dark variety similar to what is observed in the common hawk (Falco communis.) Their upper parts are of a darker slate color and the vinous collar of the neck is entirely wanting. The color of the lowerparts is much deeper, and every where, that is to say, even at the under coverts of wings and tail crossed by very distinct grayish white bars, lastly, the quills and great under coverts of the wings show the black bars, distinguishing the first plumage of the species. We possess ten specimens of this variety killed in Halmahera [1]).

As to the immature individuals of this species, the markings of their plumage is liable to variations; and in those of New-Guinea and the adjacent islands, the color of the markings is in general paler and inclining to rufous, but all of them have the great under coverts of the wing and the quills furnished with black cross bars, which fade more or less completely away in the adult bird.

We must observe, that our young specimen of the island of Bouro agrees in every sense with the description of the young Astur Wallacii of the same island, given by Mr. Sharpe.

The length of the wing varies with Nisus rufitorques of from 7 to 10 inches and 3 lines; that of the tail of from 5 and a half to 8 inches (french measure).

Our Museum possesses specimens of this species killed in the Fidji islands, in the isle of Mefoor (bay of Geelvink), in the North-West peninsula of New-Guinea, and in the islands of Misool, Great and Little Key, Aru, Banda, Gebeh, Obi-lattu, Morotay, Ternate, Batjan, Halmahera and Bouro.

It may be seen from the foregoing review, that Nisus rufitorques has an unusual wide geographical range, and that this range is subject to a no less remarkable interruption, the species being excluded from Ceram and Amboina where it is represented by Nisus iogaster, although it occurs again in the isle of Bouro. A similar example of this kind is presented by the Carpophaga perspicillata, living in Halmahera and Bouro, and being re-

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1) Mr. Sharpe assigns to this variety a longer middle too; but I could not make out this characteristic.

presented in Ceram and Amboina by another species, viz. the Carpophaga neglecta.

These lines may be sufficient to show, that an establishment of more than one species on Nisus rufitorques is well-nigh impossible, and is to be considered as a loss, not a gain to science.

NISUS POLIOCEPHALUS.

The first specimens of this species brought into Europe, were collected by a civil officer of the Dutch Government sent in 1825 to explore the Aru-islands by the late Governor-General of Dutch India, Baron van der Capelle. I examined this specimen in 1827, but did not think it convenient to establish a new species on a single individual apparently in immature plumage. I could not procure this specimen for the museum earlier than in 1866. In the meanwhile Mr. Wallace had sent to England the adult female of a bird shot in the Aru islands, which I recognized at belonging to the same species as my specimen. It was described by G. R. Gray[1] under the name of Accipiter poliocephalus.

Nisus poliocephalus has only been observed in the North-Western peninsula of New-Guinea, and in the neighbouring islands of Batanta, Salawatti, Mysol and Aru. The specimens of New-Guinea were collected near Dorey, Andaï and in the Arfak-mountains.

We have seen that Nisus rufitorques is coexistent with Nisus poliocephalus in all those countries, but that the former has a far more extended range, and is found in tracts not frequented by the latter species.

Both these birds, though closely allied, exhibit constant distinctive characteristics, and can by no means be confounded: Nisus poliocephalus being generally a little smaller

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1) Proceed. Zool. Soc. London, 1858, p. 170.

than Nisus rufitorques and presenting a different system of coloration.

The following measures are taken from eleven specimens of our collection.

Wing 6$^3/_6$ to 7$^3/_6$ inches. Tail 5$^1/_2$ to 6$^1/_2$ inches.

As to the legs and toes, cere and eyes, it appears that their color presents, instead of the more or less deep yellow observed in those parts in Nisus rufitorques, a fine reddish orange inclining sometimes, in the eye, even to reddish brown.

The system of coloration of the plumage may be stated as follows. In the first plumage, the upper parts of the bird are rufous, the lower parts of a yellowish white interrupted, along the middle of each feather by a black streak, a marking equally observed in the young of Nisus trinotatus, Buteo (Poliornis) poliogenys, Buteo (Bacha) rufipectus, and, as an accidental characteristic in Haliaëtus vocifer and Haliastur indus. The perfect plumage which is produced by a change of color of the feathers and not by moulting, shows the upper parts to be of a slaty gray, passing on head and neck more or less to a whitish gray, whereas the lower parts are of a pure white. The black streaks of the under surface of the body, disappear however only gradually which is proved by specimens, in which their number is considerably less or even reduced to a few. The same is more or less the case with the black bars of the primaries.